

said optical fiber arranged flush with said contact substrate.

32  
31. (New) A method in accordance with claim 26, wherein:  
said moving of said contact substrate through said adhesive simultaneously seals a gap  
between said substrates.

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#### REMARKS

The claims have been amended to improve the style of this application.

With this Amendment Applicant is submitting a certified copy of the Priority Document and a certified translation of the Priority Document. This should now perfect Applicant's claim for priority. This should now also overcome the rejection of claims 13 - 16 as being obvious over Azdasht in view of Momeni.

Claims 13 - 16 have also been rejected as being obvious over Azdasht in view of Butzkow.

With this Amendment Applicant is adding new claim 26 which sets forth the step of covering the terminal area of the carrier substrate, and the area of the carrier substrate which receives the contact substrate with an adhesive. Claim 26 then sets forth the step of placing the contact substrate on the adhesive which is on the carrier substrate. In the embodiment of the present drawings, the contact substrate is shown by chip 11, and the carrier substrate is shown by reference 12. The adhesive is shown by reference 32. As can be seen from the embodiment of Figs. 1 and 2, the adhesive 32 is first placed on the carrier substrate 12, and then the chip 11

is passed through the adhesive 32 to touch the terminal areas on the carrier substrate 12.

The rejection states that Azdasht does not use an adhesive and that Butzkow teaches adhesively bonding the substrates together. Applicant has reviewed Butzkow, and finds Butzkow to describe adhesive fixing soldering sections 3 to the connections 5 of the component B3. This adhesive appears to be in location 4 as shown in Fig. 3A of Butzkow. Applicant notes that adhesive 4, especially the step of applying adhesive 4 in Butzkow, does not have the same relationship as the adhesive in claim 26. It appears in Butzkow, that the component B3 is placed on the connection surfaces 2 with the soldering sections 3 already fixed to the connections 5 of the component by adhesive. Therefore Butzkow does not teach the step of covering a terminal area, and a receiving area, of a carrier substrate with adhesive, and then placing a contact substrate on the adhesive on the carrier substrate. The teaching of Butzkow appears to indicate that solder connections should be adhesively connected to a component, before the component is placed on a circuit board. If person of ordinary skill in the art would modify Azdasht with the teachings of Butzkow, the person of ordinary skill would be led to connect elements 22 and 23 of Fig. 2 of Azdasht, to element 32 of Azdasht by adhesive before element 32 is placed on element 20. Applicant notes that this combination is not the same as claim 26. Claim 26 instead sets forth a different combination of steps, namely first placing adhesive on a carrier substrate, and then placing the contact substrate on the adhesive. Since the combination of Azdasht and Butzkow with regard to adhesive 4 would lead a person to a different arrangement of steps in claim 26, claim 26 cannot be considered obvious by Azdasht and Butzkow.

Butzkow also describes self-adhesive plastic balls 6. Applicant notes that adhesive balls 6 of Butzkow do not cover a terminal area and therefore any applying of adhesive ball 6 in Butzkow is not similar to the step of covering the terminal area of the carrier substrate of claim 26. Therefore the adhesive ball 6 of Butzkow, in combination with Azdasht, cannot anticipate all of the features of new independent claim 26. Claim 26 therefore further defines over Azdasht.

Independent claim 13 has been amended to set forth that the arranging of the substrates, and the displacing of the adhesive simultaneously seal a gap between the substrates. Support for this feature can be found in the substitute specification on page 4 line 18 and page 5 line 18.

Applicant has reviewed the adhesive of Butzkow, and finds no teaching nor suggestion of any adhesive in Butzkow, which would seal a gap between two substrates. Claim 13 therefore defines over the combination of Butzkow and Azdasht.

Applicant further notes that the references of Butzkow and Azdasht, while having many features in common, actually leads a person of ordinary skill in opposite directions. Applicant notes that layer 4, and adhesive ball 6 are taught by Butzkow to temporarily fix the soldering strips 3 to the pins 5, and to temporarily fix the component B3 to the circuit board. This is indicated in column 2 last paragraph of Butzkow. Applicant further notes that this paragraph explicitly discloses that the adhesive balls 6 are to be used for a temporary connection as an alternative to the use of a handling device for temporarily fixing a component to a circuit board. Therefore the use of plastic adhesive balls 6 in Butzkow, leads a person away from a bonding head 11 in Azdasht. A person following the teachings of the applied prior art, would therefore

either be led to use the bonding head 11 of Azdasht, or the adhesive balls 6 of Butzkow. The combination of Azdasht and Butzkow, would not lead a person to use both a bonding head and adhesive balls, to provide a more effectively bonded arrangement. Both the bonding head 11 of Azdasht, and the adhesive ball 6 of Butzkow are only meant for temporary combining and a person would not be led to use either device for a long term solution. Therefore the present independent claims further define over the prior art, since the prior art actually leads a person of ordinary skill to two different methods, and does not lead the person to combine methods.

Applicant further notes that both of the independent claims set forth moving a terminal area of the contact substrate through the adhesive to touch the terminal area of the carrier substrate. Pins 5 of Butzkow do not move through the adhesive balls 6, and therefore adhesive balls 6 of Butzkow further differ from the adhesive of the independent claims.

Applicant further notes that there does not appear to be a teaching in Butzkow of moving element 5 through an adhesive 4 to cause element 5 to touch a terminal area of a carrier substrate. Instead it appears that element 4 only holds element 3 onto element 5. And that element 3 is then later heated to join element 5 and element 2. Element 4 does not appear to serve any purpose to more effectively bond substrates together. Therefore element 4 of Butzkow cannot provide the incentive set forth in the rejection.

New claim 31 has been added to set forth that the step of moving the contact substrate through the adhesive simultaneously seals a gap between the substrates. As described above with regard to claim 13, Applicant finds no teaching nor suggestion of any adhesive in the applied prior art which seals a gap between substrates. Claim 31 therefore further defines over

the prior art.

New claim 30 sets forth the further step of advancing the optical fiber toward the contact substrate in the mouthpiece to have the optical fiber be arranged flush with the contact substrate. Support for this feature can be found in the substitute specification on page 7 lines 12 - 15. Applicant finds no teaching nor suggestion in the prior art of any step of advancing fibers to be flush with a contact substrate. Therefore claim 30 further defines over the prior art.

It is only the present invention which sets forth the step of covering terminal areas and a receiving area of a carrier substrate with an adhesive, and then passing the contact substrate, preferably a chip 11, through the adhesive to have the terminal areas of the substrates touch each other. Applicant has found that this method provides a very strong and reliable connection, and also minimizes the effort needed to provide a strong and reliable connection. It is Applicant's position that this arrangement of method steps is an improvement over the prior art, and worthy of patent protection.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted  
for Applicant,

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### MARKED-UP VERSION OF CLAIM 13

13. (~~NEW~~Amended). A method for thermally connecting the terminal areas of a contact substrate to the terminal areas of a carrier substrate, the method comprising the steps of:

depositing adhesive material between the substrates in the plane of the connection;  
arranging the substrates in a connecting position such that the terminal areas are situated opposite one another in the plane of the connection and substantially simultaneously displacing the adhesive material deposit arranged between the substrates in the plane of the connection with the arrangement of the contact substrate in the connecting position, said arranging of the substrates and said displacing of the adhesive simultaneously sealing a gap between the substrates;

heating the contact substrate to the connecting temperature from a rear side that is situated opposite the terminal areas in order to reach the required connecting temperature in the plane of the connection; and

heating the contact substrate by subjecting the substrate to laser energy to produce a thermal connection between the terminal areas of the substrates.